Governor's Office *of* Economic Development

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State of Utah

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Governor

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March 7, 2014

Letter – Expression of Interest
VIA ECFS

Chairman Thomas Wheeler
Commissioner Mignon Clyburn
Commissioner Jessica Rosenworcel
Commissioner Ajit Pai
Commissioner Michael O'Rielly
Jonathan Chambers

Federal Communications Commission
445 12th Street, SW 20024
Washington, DC

<div align="center">

Re: Expression of Interest – Rural Broadband Experiments
Connect America Fund, WC Docket No. 10-90

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Dear Chairman Wheeler, Commissioners and Mr. Chambers,

We would like to express the State of Utah's interest in participating in the Rural Broadband Experiments announced at the January 30, 2014 Federal Communications Commission (FCC) open meeting. The State of Utah would like to take this opportunity to document the state's preference on how this program could be implemented to increase broadband capacity in rural areas.

Any program implemented by the FCC will rely heavily upon the ability to coordinate with broadband providers and communities to implement best practices. It will also depend on verifying the accuracy of mapping resources to ensure that funding is allocated appropriately. The State of Utah recommends that in addition to funding infrastructure projects operated by broadband providers the FCC should consider providing funding to states to:

- Assist in coordinating Rural Broadband Experiment projects.
- Provide data verification services to help target resources to underserved areas.
- Provide a forum to share best practices among grantees.
- Work with public landholding agencies to identify areas where permitting could be streamlined, particularly easing permitting restrictions in previously disturbed areas. These practices could assist in the implementation of the June 14, 2012 Executive Order "Accelerating Broadband Infrastructure Deployment."

The Utah Governor's Office of Economic Development, under the direction of the Utah Public Service Commission, is currently implementing the Utah Broadband Project, which is Utah's State Broadband Initiative (SBI) program administered by the National Telecommunications and Information Administration (NTIA). The program in Utah was funded with an appropriation of approximately $1 million per year, and was funded through the American Recovery and Reinvestment Act of 2009. By implementing this program, the state has learned much about best practices and developed relationships that may be utilized to expand partnerships and broadband access in rural areas.

The SBI programs, and particularly the Utah Broadband Project, may serve as a model that the FCC may look to in creating greater coordination between the FCC, state and local governments, and broadband service providers. The State of Utah strongly recommends providing funding to support it.

Attachment A, gives an example of how the Utah Broadband Project is working with a rural community to address broadband access issues.

Utah has consistently been ranked as having the highest home broadband adoption in the nation by the US Department of Commerce and has the 5th fastest overall speeds according to Akamai Technologies. Since 2011, the State of Utah has seen significant speed increases in rural areas and the project team attributes much of this success to the level of collaboration and coordination that has been undertaken between broadband providers and public entities. Please see Attachment B.

The State of Utah feels that the Rural Broadband Experiments program could be designed to encourage public-private partnerships to deploy broadband infrastructure, expanding these practices to local communities. The Utah Department of Transportation (UDOT) has been facilitating cooperative fiber and conduit trades with broadband providers and has implemented a best practice of laying conduit during road construction projects, where it makes sense. These practices have extensively expanded the state's communications infrastructure and future capacity without major capital investment, resulting in real cost-savings for Utah taxpayers. The UDOT model has given the state a competitive advantage by enabling the development of next-generation broadband services in both urban and rural areas at a reduced cost. Please see Attachment C.

The state feels that a similar model could be implemented on a local level and recommends that in addition to incentivizing providers to deploy infrastructure in high-cost areas, the FCC should consider adopting a program that would encourage public-private partnerships and dig-once policies by issuing funding to local communities to work with broadband providers to propose projects that may deploy infrastructure by working together to reduce costs. Examples of suggested models may include:

- Providing funding to local communities and providers who are willing to work together. These partnerships can reduce costs by coordinating the installation of broadband infrastructure with road construction and other relevant projects. They may also install empty conduit that multiple providers can utilize.
- Broadband infrastructure is the backbone necessary for the deployment of mobile broadband networks. The state would also like to encourage the FCC to work with mobile wireless carriers to develop strategies to increase coverage in rural areas where it would otherwise be cost prohibitive.

- Providing funding to local communities and providers who are willing to partner and extend services by reviewing public structures for potential wireless service installations, modifying zoning laws to allow for installations on buildings and providing access to other properties where infrastructure may be placed in order to reduce costs.
- Providing funding to local communities to update planning documents and city ordinances to ensure conduit is placed in new developments, allowing access to multiple providers.

The state hopes that the FCC will consider funding these types of initiatives in addition to funding the construction of broadband networks in rural areas which would otherwise be cost prohibitive. Providing high-speed broadband access in rural areas is critical to economic development.

We respectfully ask the FCC to consider these comments when making decisions regarding the Rural Broadband Experiments and any future initiatives related to the Connect America Fund (CAF). We look forward to working closely with you to implement the programs that are funded following your current review.

Thank you for your consideration,

Spencer P. Eccles
Executive Director

Attachment A

Over the past six months, the Governor's Office of Economic Development's Rural Development Office has visited 25 of Utah's 29 counties asking for each counties' highest economic development priority. This amounted to over 12,000 highway miles traveled.

The outreach was deliberate and productive and revealed a wide range of needs. Several communities have expressed a desire to work with the state and broadband providers to increase mobile and fixed broadband speeds to foster community growth, economic stability and even public safety. These communities include rural areas such as: Park Valley, Snowville and Grouse Creek in Box Elder County; Escalante and Boulder Town in Garfield County; Big Water in Kane County; Junction in Piute County; and Blanding and Bluff in San Juan County.

Overview of Wired and Wireless Coverage in Utah
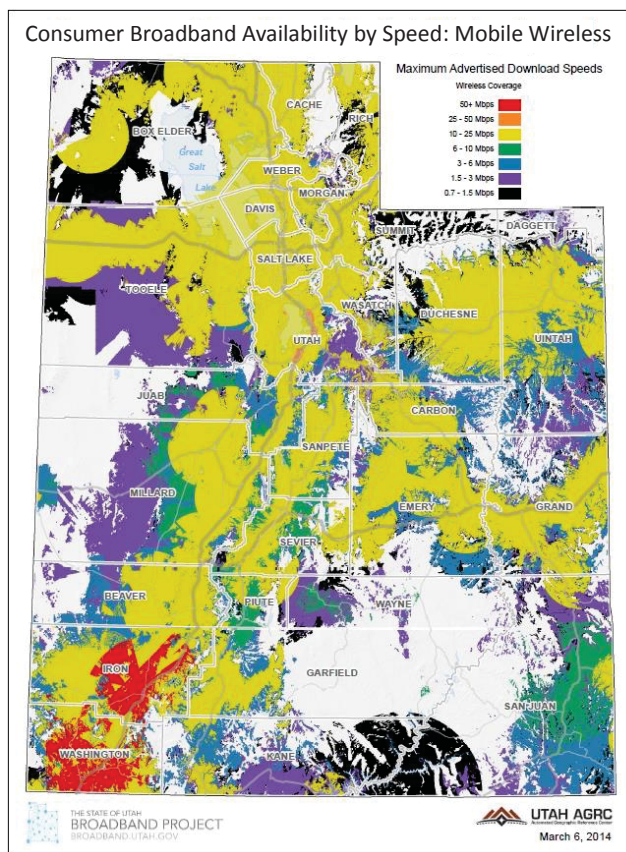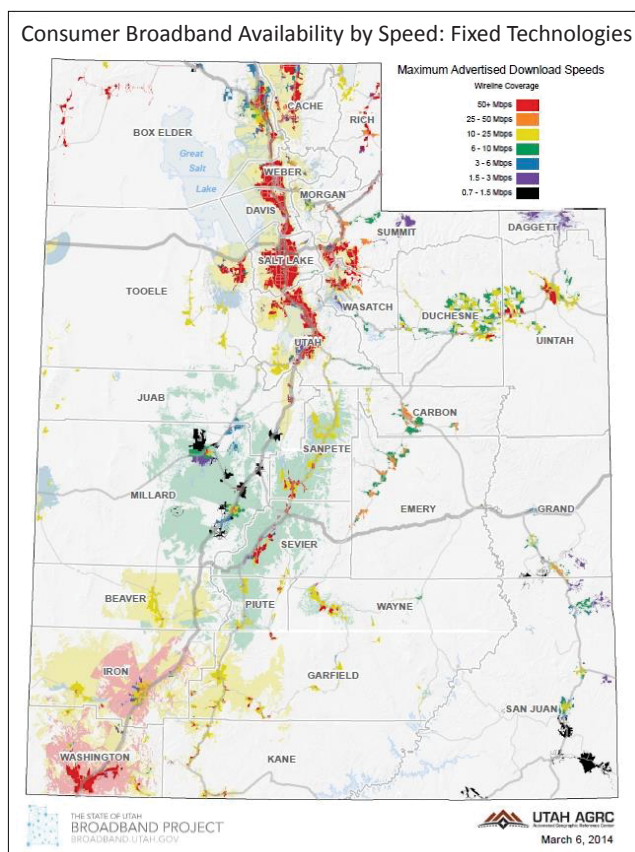
The state is also undertaking a statewide regional planning effort and several additional cities and towns have expressed a desire to work with the private sector to develop a strategy to increase speeds and coverage.

As seen in the maps provided on the previous page, although wireless and wireline services have been deployed extensively throughout the populated areas of the state, certain parts of rural Utah can still benefit from additional infrastructure.


Broadband Access in Big Water
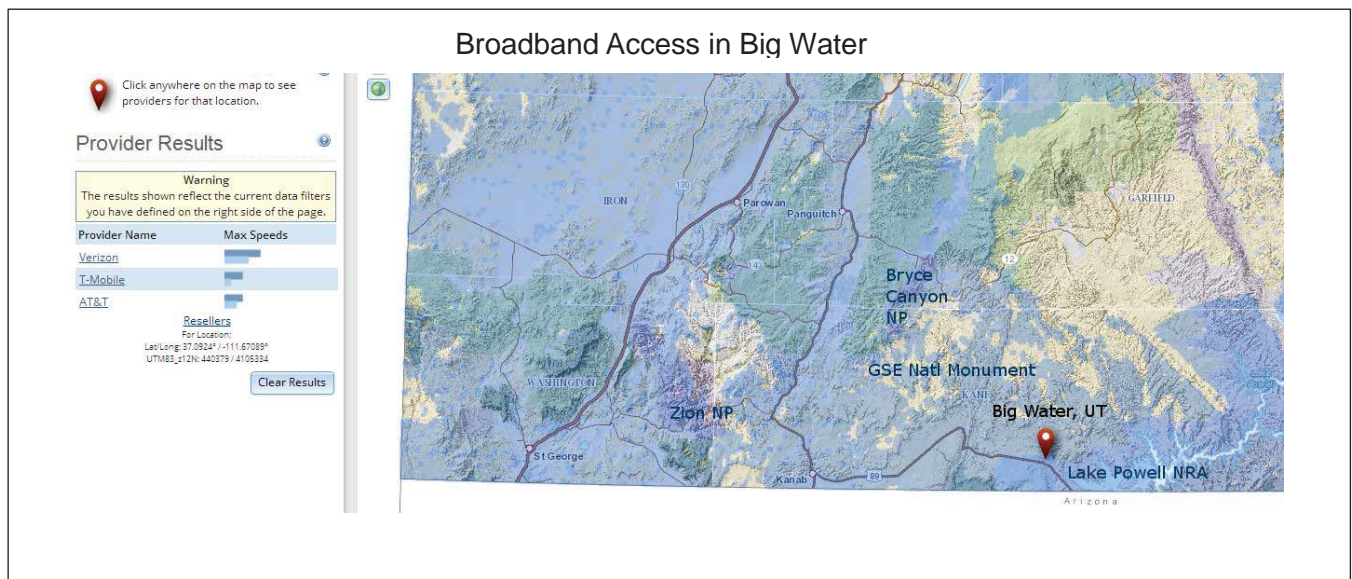
For example, representatives from Big Water Joined one of the Utah Broadband Project's regional planning teams and expressed the town's need for better broadband coverage. Big Water is difficult to reach, due to the concentration of federal land in the area. As seen in the map to the right, Big Water has no fixed broadband options.

Big Water is the gateway to Lake Powell (Glen Canyon, National Recreation Area) which receives close to 2,000,000 tourist visits per year, and has significant needs for high speed broadband access. The project team is currently working with Big Water and has identified providers who may be able to increase service, including a provider that recently started providing wireless access to the local school through an E-Rate funded connection through the Utah Education Network (UEN). The project team plans to work with these partners to develop a plan to increase coverage in the area. By coordinating the efforts of UEN, Big Water's community government and broadband service providers, the project team hopes to be able to resolve this issue. This experience is one of many examples of how coordination between state government, local governments and providers can help facilitate the expansion of infrastructure to underserved areas. The project teams encourages the FCC to fund these types of activities through the Rural Broadband Experiments program.

Attachment B

The Utah Broadband Project produces maps displaying broadband coverage throughout the state. This is a key component of the project's goals. By using statewide broadband coverage maps prepared by the Utah Broadband Project, local governments, broadband providers and state policy makers are able to quickly assess broadband infrastructure increases and determine where additional infrastructure is needed.
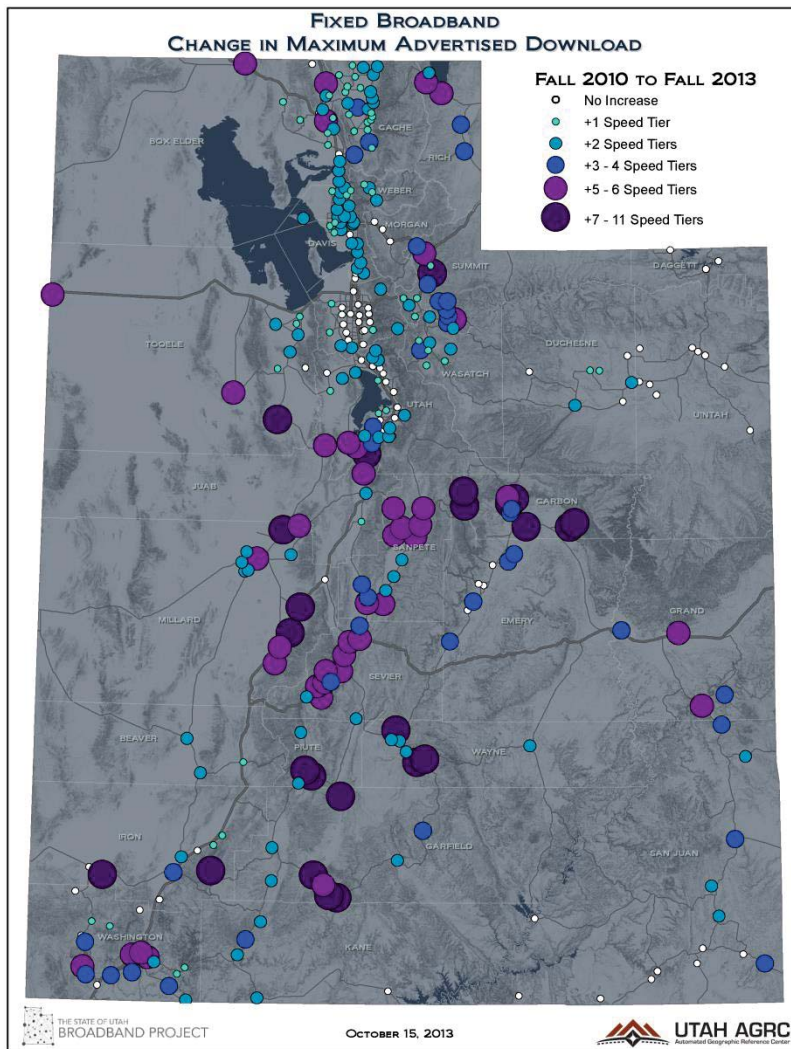
These two maps below show how advertised broadband speeds have changed from Fall 2010 – Fall 2013. Fall 2010 was the first data collection round in which all of the known broadband providers participated with the project by providing their service areas along with their associated speeds and technologies.

The map on the left displays fixed NTIA speed tier interval increases in cities, towns, and populated places using fixed wireless, cable, DSL and fiber optic connections. From 2010 to 2013 over 108 cities have increased broadband speeds to over 1 Gig.

Fixed broadband infrastructure is vital for the deployment of mobile broadband networks. As we continue to see improvements in fixed broadband infrastructure, mobile broadband will increase as well. The second map shows mobile broadband speed tier increases. This applies to service used by smartphones, aircards, and similar devices.

Utah has been ranked as having the nation's 5th fastest overall broadband speeds according to Akamai Technologies. When studying the maps produced by the Utah Broadband Project it is easy to see why Utah ranks highly compared to other states.

The public-private partnerships that have been created in Utah have contributed to the speed increases over the past few years. Coordinating infrastructure build-outs with local governments and broadband service providers will keep Utah on the leading edge of emerging broadband technologies.

Attachment C

The largest cost element for deploying broadband is burying infrastructure underground. Studies have indicated that as much as ninety percent of the cost of deploying broadband infrastructure is spent during construction, particularly while excavating roadways, according to the FHWA[i]

UDOT has aggressively pursued fiber deployment in its highway easements to support a robust Intelligent Transportation Systems (ITS) system. UDOT's ITS network integrates more than 800 traffic signals, 1,400 detector stations, 250 closed-circuit television (CCTV) cameras and 70 Variable Message Signs across the state's 5,800 miles of roadway.[ii]

UDOT has facilitated cooperative fiber and conduit trades with broadband providers and has developed a best practice of laying conduit during road construction projects, where it makes sense. These practices have extensively expanded the state's communications infrastructure without major capital investment, resulting in real cost-savings for Utah taxpayers.

Using this approach, UDOT has doubled its network footprint, with 800 miles of fiber owned by the agency and the use of nearly 1,000 miles obtained in trade. UDOT negotiates directly with private telecommunications carriers to develop strategic partnerships to leverage highway fiber infrastructure for broadband expansion.
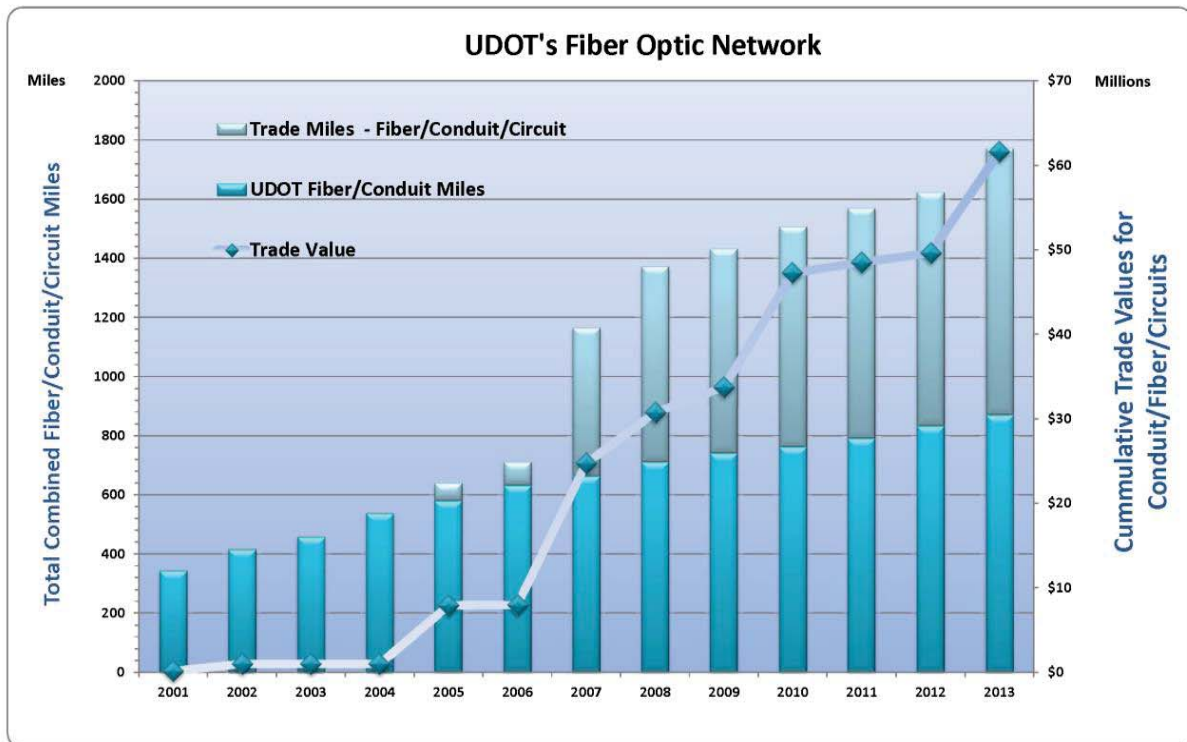
The UDOT model has given the state a competitive advantage by enabling the development of next-generation broadband services in both urban and rural areas at a reduced cost.

A similar model could be used by rural communities to expand broadband infrastructure, but in lieu of obtaining fiber through trade, rural communities could bury empty conduit during road construction projects, and then make the conduit available for all broadband providers. Through this method, costs can be reduced significantly.

Other methods of deploying broadband infrastructure to rural communities include: Coordinating road construction projects with broadband providers, giving equal opportunities to lay infrastructure in open trenches and planning new community developments with broadband infrastructure deployed in the initial stages of construction.

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[i] FHWA Office of Transportation Policy Studies, October 2013, "Minimizing Excavation Through Coordination", http://www.fhwa.dot.gov/policy/otps/policy_brief_dig_once.pdf

[ii] Tilson Fiber Technology LLC, March 1, 2013 "Highway broadband Utilization Study, Dig Once White Paper" http://www.maine.gov/connectme/digonce/docs/Highway%20Broadband%20Utilization%20Study.pdf